



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,271	09/23/2005	Hiroyasu Yumura	017700-0177	1269

22428 7590 07/11/2008  
FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
----------

NORRIS, JEREMY C

ART UNIT	PAPER NUMBER
----------	--------------

2841

MAIL DATE	DELIVERY MODE
-----------	---------------

07/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,271	<b>Applicant(s)</b> YUMURA ET AL.	
	<b>Examiner</b> Jeremy C. Norris	<b>Art Unit</b> 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,8 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 March 2008 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 8, and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3,612,742 (Snowden).

Snowden discloses, referring primarily to figures 3 and 5, a superconducting cable comprising: a former (70) made of a normal-conducting metal (col. 4, lines 15-30); a first superconducting layer (66) formed around the outer circumference of said former and in electrical communication with the former (col. 4, lines 40-45); an electric insulating layer (69) formed around the outer circumference of said first superconducting layer; a second superconducting layer (80) formed around the outer circumference of said electric insulating layer; and a normal-conducting metal layer (82,

Art Unit: 2841

col. 4, lines 70-75) is formed only between said electric insulating layer and said second superconducting layer; any volume between the first superconducting layer and said electrical insulating layer is free of the normal conducting metal layer; and wherein said first and second superconducting layers are in a state cooled by a refrigerant (col. 2, lines 40-55) [claim 1], wherein said normal-conducting metal layer is formed by winding round wires with a round cross section or tape-shaped wires formed from a normal-conducting metal [claim 3], further comprising wire insulating layers around outer circumferences of the wires [claim 4], wherein said superconducting wires have a matrix ratio within a range between 1.5 or more and 3.0 or less [claim 8].

Additionally, Snowden discloses, a superconducting cable comprising: a former (70) made of a normal-conducting metal (col. 4, lines 15-30); a first superconducting layer (66) formed around the outer circumference of said former and in electrical communication with the former (col. 4, lines 40-45); an electric insulating layer (69) formed around the outer circumference of said first superconducting layer; a second superconducting layer (80) formed around the outer circumference of said electric insulating layer; a normal-conducting metal layer (82) is formed between said electric insulating layer and in contact with said second superconducting layer; and wherein said first and second superconducting layers are in a state cooled by a refrigerant (col. 2, lines 40-55) [claim 11], wherein said normal-conducting metal layer is in contact with said electric insulating layer [claim 12], wherein said normal-conducting metal layer is formed by winding round wires with a round cross section or tape-shaped wires formed from a normal-conducting metal [claim 13], further comprising wire insulating layers

Art Unit: 2841

around outer circumferences of the wires [claim 14], wherein said superconducting wires have a matrix ratio within a range between 1.5 or more and 3.0 or less [claim 15].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is (571)272-1932. The examiner can normally be reached on Monday - Thursday, 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeremy C. Norris/  
Primary Examiner, Art Unit 2841

Jeremy C. Norris  
Primary Examiner  
Art Unit 2841

Application/Control Number: 10/550,271  
Art Unit: 2841

Page 5